

REMARKS/ARGUMENTS

General Remarks

Applicants would like to thank Examiner Walters for the courtesy of an interview extended to Applicants' representative on March 24, 2010. During the interview, amendments to the claims as well as arguments of non-obviousness over the cited references was discussed. Said amendments as well as arguments similar to those presented during the interview are reiterated herein.

Claims Status

Claims 1, 5, 9, 12, 14 and 15 are pending. Claim 1 is withdrawn pursuant to a previous Restriction Requirement; however claim 1 is also currently amended to depend from claim 5. Claims 2-4 and 6-8 are currently canceled without prejudice, and claims 10, 11 and 13 were previously canceled without prejudice. Claim 5 is currently amended to include the subject matter of original claims 7 and 8, as well as to limit the phosphate film to a zinc phosphate film pursuant to the examples (see e.g., Table 1 on page 27 of the specification). Claims 9, 12, 14 and 15 are currently amended for antecedent basis purposes pursuant to the amendments to claim 5 from which these claims depend. No new matter is believed to have been entered.

§103(a) Rejections

The claimed invention has been rejected as follows: (i) claims 5, 8, 9, 12, 14 and 15 are rejected as obvious in view of the combination of *Grubb* (US 2002/0090823), *Guyomard* (US 4,316,939) and *Dutheil* (US 5,891,515); (ii) claim 6 is rejected as obvious in view of the combination of *Grubb*, *Guyomard*, *Dutheil* and *Springer* (US 6,537,610); and (iii) claim 7 is

rejected as obvious in view of the combination of *Grubb, Guyomard, Dutheil, Springer* and “*Powder Coatings Made Easy*.” Applicants respectfully traverse these rejections.

The claimed method as recited in currently amended independent claim 5 is what the Applicants refer to as a “2-coating, 1.5-baking” or “2C1.5B” method in their specification (see e.g., [0042] on page 14, and Table 1 on page 27). Applicants submit that such a method, in combination with a spring having a zinc phosphate film formed on its uncoated surface, results in a multi-coated spring having unexpectedly improved corrosion resistance, for at least the following reasons.

First, Applicants note that the corrosion resistance of a spring having an iron phosphate film on its surface is improved when said spring is produced via a 2C1B method as compared to a 2C1.5B method. This is evidenced by the iron phosphate films data in Table 1 of the specification (reproduced below), wherein the corrosion resistance increases from 88 to 91 at normal temperature and increases from 88 to 97 at low temperature.

[Table 1]

pretreatment	iron phosphate films			zinc phosphate films		
coating method	2C1B	2C1.5B	only the topcoat layer	2C1B	2C1.5B	only the topcoat layer
normal temperature	91	88	55	95	97	80
low temperature (−10°C)	97	88	78	100	100	77

Quite the opposite of the corrosion results of a spring having an iron phosphate film, Table 1 shows that the corrosion resistance of a spring having a zinc phosphate film on its surface is improved when said spring is produced via a 2C1.5B method as compared to a 2C1B method.

Furthermore, Applicants note that despite the Office’s allegations that the prior art of record suggests that corrosion resistance can be improved when zinc phosphate films are used as opposed to iron phosphate films (Office Action, page 5), Applicants submit that the prior

art of record does not disclose or suggest a further improvement of the corrosion resistance when zinc phosphate films are used via a 2C1.5B method as opposed to a 2C1B method. As such, Applicants submit that the prior art of record, alone or in combination, does not render obvious the claimed method of producing a spring, having a zinc phosphate film formed on its uncoated surface, having such enhanced corrosion resistance.

Moreover, Applicants submit that one skilled in the art considering both methods 2C1B and 2C1.5B would not be able to predict whether the resulting corrosion resistance would be increased or decreased. This is evidenced by the data in Table 1 showing an increase in corrosion resistance when changing from 2C1.5B to 2C1B for iron phosphate films, but an increase in corrosion resistance when changing from 2C1B to 2C1.5B for zinc phosphate films. Applicants submit that given the data for iron phosphate films showing an improvement with the 2C1B method, and given the prior art's suggestion that corrosion resistance can be improved when zinc phosphate films are used as opposed to iron phosphate films (as alleged by the Office), one skilled in the art would have expected an improvement of the corrosion resistance of the resulting spring by changing the phosphate film from iron to zinc and using the 2C1B method. Accordingly, Applicants submit that one skilled in the art would not have expected a further enhancement of the corrosion resistance by using the 2C1.5B method, said 2C1.5B method having provided a decrease in corrosion resistance for iron phosphate films.

In addition, Applicants note that one skilled in the art would not have been able to predict that the simple combination of (a) a reference disclosing the use of zinc phosphate films on the uncoated surface of the spring and (b) a combination of references that disclose, upon their combination, a method similar to the claimed 2C1.5B method, would result in a coated spring having superior corrosion resistance.

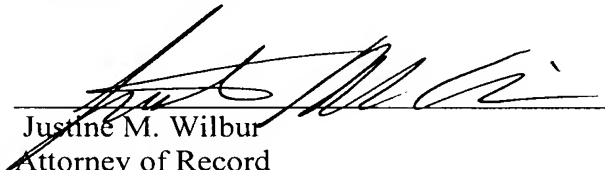
In light of the foregoing, Applicants submit that no combination of the cited references discloses or suggests the claimed method as recited in currently amended independent claim 5 (i.e., the 2C1.5B method) using a spring having a zinc phosphate film on its uncoated surface as the starting material. As such, Applicants request withdrawal of the obviousness rejections of record.

Conclusion

For the reasons discussed above, Applicants submit that all now-pending claims are in condition for allowance. Applicants respectfully request the withdrawal of the rejections, withdrawal of the restriction requirement, and passage of this case to issue.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, L.L.P.
Norman F. Oblon


Justine M. Wilbur
Attorney of Record
Registration No. 59,678

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 07/09)